

## CLAIMS:

1. A receiver for a multi-carrier communication system, the receiver being arranged for receiving training pilot carriers (TRPC) during a training symbol (T1, T2) preceding data symbols (DS) comprising data carriers (DC) and data pilot carriers (PC), the receiver comprising
  - 5 a correction unit (171) for supplying, under control of a control signal (CEC), a corrected signal (CDC1) comprising information on the data carriers (DC) being corrected for a common amplitude error and/or common phase error,
    - 10 a quality determination unit (174) for determining which ones of the training pilot carriers (TRPC) occurring at positions of the data pilot carriers (PC) fulfill a predetermined quality criterion, and
      - 15 a control unit (175) for supplying the control signal (CEC) being dependent on an amplitude and/or phase of the data pilot carriers (PC) of which corresponding training pilot carriers (TRPC) fulfill the predetermined quality criterion, and not on the data pilot carriers (PC) of which corresponding training pilot carriers (TRPC) do not fulfill the predetermined quality criterion.
  2. A receiver for a multi-carrier communication system as claimed in claim 1, wherein the control unit (175) is arranged for averaging the amplitude and/or phase of the data pilot carriers (PC) of which the corresponding training pilot carriers (TRPC) fulfill the predetermined quality criterion to provide an estimate for a common amplitude error and/or a common phase error.
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  3. A receiver for a multi-carrier communication system as claimed in claim 2, wherein the control unit (175) is arranged for performing said averaging for each data symbol (DS).
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  4. A receiver for a multi-carrier communication system as claimed in claim 1, wherein the receiver further comprises a Fast Fourier Transform circuit (16) for supplying the

data symbol (DS), the corrected signal (CDC1) representing a phase and amplitude of the data carriers (DC).

5. A receiver for a multi-carrier communication system as claimed in claim 1,  
5 wherein the quality determination unit (174) is arranged for comparing an amplitude of the training pilot carriers (TRPC) with a reference amplitude (RA), a particular one of the training pilot carriers (TRPC) fulfilling the predetermined quality criterion only if its amplitude is higher than the reference amplitude (RA).
- 10 6. A receiver for a multi-carrier communication system as claimed in claim 1,  
wherein the quality determination unit (174) is arranged for comparing a phase of the training pilot carriers (TRPC) with an average value of phase of the training pilot carriers (TRPC), a particular one of the training pilot carriers (TRPC) fulfilling the predetermined quality criterion only if its phase difference with respect to the average value is smaller than a  
15 predetermined value.
- 20 7. A receiver for a multi-carrier communication system as claimed in claim 1,  
wherein the multi-carrier communication system is based on orthogonal frequency division multiplexing.
- 25 8. A method of receiving a multi-carrier carrier modulated signal in a multi-carrier communication system, the method comprising  
receiving (1) training pilot carriers (TRPC) during a training symbol (T1, T2)  
preceding data symbols (DS) comprising data carriers (DC) and data pilot carriers (PC),  
supplying (171), under control of a control signal (CEC), a corrected signal  
(CDC1) comprising information on the data carriers (DC) being corrected for a common  
amplitude error and/or common phase error,  
determining (174) which ones of the training pilot carriers (TRPC) occurring  
at positions of the data pilot carriers (PC) fulfill a predetermined quality criterion, and  
30 supplying (175) the control signal (CEC) being dependent on an amplitude  
and/or phase of the data pilot carriers (PC) of which corresponding training pilot carriers  
(TRPC) fulfill the predetermined quality criterion, and not on the data pilot carriers (PC) of  
which corresponding training pilot carriers (TRPC) do not fulfill the predetermined quality  
criterion.

9. A multi-carrier communication system comprising a receiver as claimed in claim 7.
- 5 10. A wireless multi-carrier communication system comprising a receiver as claimed in claim 1, wherein said system comprises a transmitter for transmitting a modulated multi-carrier high frequent signal via air, and the receive comprises means for receiving said high frequent signal.